

Exploration Systems Division

List of Acronyms

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

-A-

AA	Associate Administrator
ACUC	Animal Care and Use Committee
ACWP	Actual Cost of Work Performed
ADM	Acquisition Decision Memorandum
AEMC	Advanced Environmental Monitoring and Control, GFM-2
AEE	Advanced Engineering Environment
AER	Advanced Exploration Research
AES	Anthropometric EVA Suit
AEVA	Advanced Extra Vehicular Activity
AFT	Advanced Food Technology
AHLS	Advanced Human Life Support
AHLS	Advanced Human Life Support
AHST	Advanced Human Support Technologies
AIM	Advanced Integrated Matrix
AL	Air Lock
ALP	Advanced Liquid Pumps
ALS	Advanced Life Support
AO	Announcement of Opportunity
AoA	Analysis of Alternatives
AOA	Annual Operating Agreement
APB	Accounting Principles Board
APB	Acquisition Program Baseline
APG	Annual Performance Goal
APMC	Agency Program Management Council
APPL	Academy of Program and Project Leadership
APSSP	Advanced Propulsion Systems and Space Power
AR	Air Revitalization
ARC	Ames Research Center
ARD	Aeronautics Research Mission Directorate
ARIS	Active Rack Isolation System
ARM	Active Risk Manager
ARMD	Aeronautics Research Mission Directorate
ARR	Assemble, Test, and Launch Operations (ATLO) Readiness Review
ARS	Air Revitalization System
AS	Ascent Stage
AS	Acquisition Strategy
ASBCA	Armed Services Board of Contract Appeals
ASI	Agency Safety Initiative
ASIC	Application-Specific Integrated Circuit
ATD	Advanced Technology Development
ATHINA	Investigation of Diffusion Flame Tip Thermo-diffusive and Hydrodynamic Instability Under Microgravity Conditions
ATP	Authority to Proceed
ATP	Acceptance Test Plan

-B-

BAA	Broad Area Announcement
BAC	Budget at Completion
BCAT-3	Binary Colloidal Alloy Test
BCDCE	Bi-Component Droplet Combustion Experiment
BCOEL	Boiling Heat Transfer & Control of Bubble Motion in Microgravity using Electric Fields
BCPR	Bioastronautics Critical Path Roadmap
BCWP	Budgeted Cost for Work Performed
BDiSL	Buoyancy Driven Instabilities in Single Bubble Sonoluminescence
BH	Big Habitat
BMP	Biomass Production
BOE	Basis-of-Estimate
BPRAC	Biological and Physical Research Advisory Committee
BPRR	Biological and Physical Research Rack
BVX	Bulk Viscosity of Xenon
BXF	Boiling Experiment Facility
BY	Budget Year

-C-

C4ISP	Command, Control, Communications, Computers and Information Systems Protection
CAD	Cost Analysis Division
CAD	Computer Aided Design
CADRe	Cost Analysis Data Requirement
CAI	Communications, Avionics, and Informatics
CAIB	Columbia Accident Investigation Board
CAIG	Cost Analysis Improvement Group
CAIV	Cost as an Independent Variable
CARD	Cost Analysis Requirements Document
CBE	Current Best Estimate
CCA	Clinger-Cohen Act
CCB	Configuration Control Board
CCF	Critical Velocities in Open Capillary Channels
CCR	Central Contractor Registry
CCRM	Continuous Cost Risk Management
CDD	Capability Development Document
CDOT	Colloidal Disorder-Order Transitions Experiment
CDR	Critical Design Review
CDS	Cargo Delivery System
CE&R	Concept Exploration and Refinement
CERR	Critical Events Readiness Review
CEV	Crew Exploration Vehicle
CEVLS	Crew Exploration Vehicle Launch Segment
CFE	Capillary Flow Experiment
CFM-2	Candle Flames in Microgravity
CFO	Chief Financial Officer
CG	Center of Gravity
CGBA	Commercial Generic Bioprocessing Apparatus
CHAINS	CHain Aggregation INvestigation by Scattering
CHESS	Condensing Heat Exchanger for Space Systems
CI	Counter-Intelligence
CIBS	Coalescence Inhibition of Bubbly Suspensions Experiment
CIO	Chief Information Office
CIR	Combustion Integrated Rack
Clean-Flame	Field Effects of Gravity on Lean Premixed Turbulent Flames
CLIDE	Contact Line Dynamics Experiment
CLV	Crew Launch Vehicle
CM-2	Combustion Module – 2
COFC	Court of Federal Claims
CoFR	Certification of Flight Readiness
COLLIDE-2	Collisions into Dust Experiment - 2
Con Ops	Concept of Operations
COTR	Contracting Officer Technical Representative
COTS	Commercial-Off-the-Shelf
CP-2L	CVB/PHaSE-2/PCS-2/LFCA
CPAF	Cost Plus Award Fee
CPAF / IF	Cost Plus Award Fee / Incentive Fee
CPD	Capability Production Document
CPFF	Cost Plus Fixed Fee
CPI	Cost Performance Index
CPI / SPI	Cost Performance Index / Schedule Performance Indicator
CPIF	Cost Plus Incentive Fee
CPM	Critical Path Method
CR	Change Request
CRA	Continuing Resolution Authority
CRL	Countermeasure Readiness Levels
CRM	Continuous Risk Management
CRR	Crew Readiness Review
CRT	Contingency Response Technologies
CRWT	Containerless Ripple Wave Turbulence Experiment
CSI	Crop System Interface
CSLM-2	Coarsening of Solid-Liquid Mixtures-2
CV	Cost Variance
CVB	Constrained Vapor Bubble Experiment, LMM-1
CVX-2	Critical Viscosity of Xenon-2
CY	Calendar Year

-D-

DAA	Deputy Associate Administrator
DAFT	Dust and Aerosol measurement Feasibility Test
DAR	Defense Acquisition Regulation
DAU	Defense Acquisition University
DCAM	Dynamic Contact Angle Measurement Experiment
DCE-2	Droplet Combustion Experiment
DCMA	Defense Contract Management Agency
DCR	Design Concept Review
DDCE	Dynamics of Droplet Combustion and Extinction Experiment
DECLIC	Dispositif pour l'etude de la croissance et des liquides critiques
DFRC	Dryden Flight Research Center
DMB	Data Management Board
DoD	U.S. Department of Defense
DoS	U.S. Department of State
DRD	Data Requirement Delivery
DRD	Data Requirements Document
DRFP	Draft Request for Proposal
DRM	Design Reference Mission
DS	Descent Stage
DSN	Deep Space Network
DSS	Destination Surface Stage
DT-IAM	Diagnostic Technologies – Integrated Autonomous Medicine

-E-

EA	Evolutionary Acquisition
EAC	Estimate at Completion
EAR	Export Administration Regulations
ECLSS	Environmental Control and Life Support System
ECP	Export Control Program
EDCA	Entropically Driven Colloidal Assembly Experiment
EDL	Entry Descent and Landing
EDS	Earth Departure Stage
EGM	Electrostatics of Granular Materials Experiment
EI	Entry Interface
ELM	Enhanced Light Microscope
ELV	Expendable Launch Vehicle
EMO	Environmental Management Office
EMS	Environmental Management System
EO	Earth Orbit
ER#	EXPRESS Rack number
ERE	Extensional Rheology Experiment
ES	Earth Surface
ESA	European Space Agency
ESC	Evaporative Spray Cooling
ESD	Exploration Systems Division
ESM	Equivalent System Mass
ESMD	Exploration Systems Mission Directorate
ESMD PARL	ESMD Performance Assessment Report Lead
ESMD PPL	ESMD Performance Planning Lead
ESMD SAMP	ESMD Single Acquisition Management Plan
ESMD Theme SEMP	ESMD Theme Systems Engineering Management Plan
ESR&T	Exploration Systems Research & Technology Division
ESS	Exploration System of Systems
ETC	Estimate to Completion
ETO	Earth to Orbit
EV	Earned Value
EV	Entry Vehicle
EVA	Extra Vehicular Activity
EVM	Earned Value Management
EVMS	Earned Value Management System
EXPRESS	Expedite the Process of Experiments to the Space Station Rack

-F-

FAD	Formulation Authorization Document
FAR	Federal Acquisition Regulations
FCA	Functional Configuration Audit
FCF	Fluids and Combustion Facility
FDS	Functional Discipline Specialist
FEANICS	Flow Enclosure Accommodating Novel Investigations in Combustion of Solids
FFP	Firm Fixed Price
FFRDC	Federally Funded Research and Development Center
FHA	Flight Hardware Availability
FIR	Fluids Integrated Rack
FIST	Flammability Diagrams of Combustible Materials in Microgravity
FLEX	FLame Extinguishment eXperiment
Flt Platform	Flight 4.1.2
FMEA / CIL	Failure Mode Effects Analysis / Critical Item List
FMS	Food Management System
FOAM	Foam Optics and Mechanics Experiment
FOC	Full Operational Capability
FOIA	Freedom of Information Act
FOM	Figure-of-Merit
FPAF	Fixed Price Award Fee
FPC	Food Preparation Capabilities
FPDS	Fire Prevention, Detection, and Suppression
FPI	Fixed Price Incentive
FPSR	Fluid Physics Strategic Research
FRR	Flight Readiness Review
FSL	Fluid Science Laboratory (ESA)
FunRes	Fundamental Research
FY	Fiscal Year

-G-

G&A	General and Administrative
GAO	General Accounting Office
GCR	Galactic Cosmic Ray
GEL	Gravity Effects in Lyophilization
GERT	Graphical Evaluation Review Technique
GFM	Granular Flow Module
GGM	Gravity and Granular Materials, GFM-3
GMSF	Growth and Morphology of Supercritical Fluids Experiment
GN&C	Guidance, Navigation and Control
GOTS	Government-Off-The-Shelf
GPD	Gate Product Deliverable
GPMC	Governing Program Management Council
GPRA	Government Performance and Results Act
GRADFLEX	Gradient Driven Fluctuations Experiment
GRC	Glenn Research Center
GSS	Ground Support System
GTP	Gas Tolerant Pump
GLIDE	Global Integrated Design Environment

-H-

HBCU	Historically Black Colleges and Universities
HCA	Head of Contracting Activity
HCL	Human Capitol Liaison
HCR	Hardware Concept Review
HQ	Headquarters
HRIS	Human Resources Information System
HSR&T	Human Support Research Technology
HUB	Historically Underutilized Business

IA	Independent Assessment
IAO	International Announcement of Opportunity
IBPD	Integrated Budget and Performance Document
IBR	Integrated Baseline Reviews
ICA	Independent Cost Assessment
ICAT	Independent Cost Assessment Team
ICD	Interface Control Document
ICE	Independent Cost Estimate
ICE	Interface Configuration Experiment
ICP	Intramural Call for Proposal
ICR	Initial Confirmation Review
ICR	Investigation Continuation Review
ID	Incremental Development
IEEE / EIA	Institute of Electrical and Electronics Engineers / Electronic Industries Association
IFB	Invitation for Bid
IGA	Inter-Governmental Agreement
IGCE	Independent Government Cost Estimate
ILS	Integrated Logistics Support
IMS	Integrated Master Schedule
InSPACE	Investigating the Structure of Paramagnetic Aggregates from Colloidal
INSTEP	In-Space Technology Experiments Program
IOC	Initial Operational Capability
IPA	Independent Program Assessment
IPAO	Independent Program Assessment Office
IPAT	Independent Program Assessment Team
IPO	Institutional Program Office
IPP	Innovative Partnerships Program
IPS	Integrated Program Summary
IPT	Integrated Product Team
IRD	Interface Requirements Document
IRR	Interim Research Review
IS ³	In-Space Support System
ISFR	In-Situ Fabrication and Repair
ISLSP	In-Situ Life Support Processes
ISO	International Organization for Standardization
ISRU	In-Situ Resource Utilization
ISS	International Space Station
IT	Information Technology
ITA	Independent Technical Authority
ITAR	International Traffic in Arms Regulations
IV&V	Independent Verification and Validation

-J-

JIMO	Jupiter Icy Moon Orbiter
JPL	Jet Propulsion Lab
JSC	Johnson Space Center

KA	Key Activities
KDP	Key Decision Point
KPP	Key Performance Parameters
KSC	Kennedy Space Center

-L-

LaRC	Langley Research Center
LAWG	Lunar Architecture Working Group
LCC	Life Cycle Cost
L/D	Lift/Drag coefficient
LEO	Low Earth Orbit
LEPAG	Lunar Exploration Program Working Group
LExSWG	Lunar Exploration Science Working Group
LFCA	Low Volume Fraction Colloidal Assemblies Experiment, LMM-4
LF-X	Logistics Flight
LH2	Liquid Hydrogen
LFCA	Low Volume Fraction Colloidal Assemblies Experiment, LMM-4
LLO	Low-Lunar Orbit
LO	Lunar Orbit
LOA	Letter of Agreement
LOC	Lunar Orbit Capture
LOE	Level of Effort
LOM	Loss of Mission
LOX	Liquid O ₂
LME	Liquid Management Experiment
LMM	Light Microscopy Module
LMS	Lunar Mission Scenario
LRIP	Low-Rate Initial Production
LRL	Lunar Robotic Lander
LRO	Lunar Robotic Orbiter
LRR	Launch Readiness Review
LS	Lunar Surface
LSAM	Lunar Surface Access Module
LSH	Life Support and Habitation
LSI	Landed Surface Interrogator
LSP	Laminar Soot Process
LSPG	Life Support Power Generation System
L ₁	Libration point 1 (Earth-Moon)

-M-

M&S	Modeling and Simulation
MABE	Microheater Array Boiling Experiment
MCDL	Master Controlled Documents List
MDA	Milestone Decision Authority
MDCA	Multi-user Droplet Combustion Apparatus
MDIP	Mission System Development Implementation Plan
MEPAG	Mars Exploration Program Analysis Group
MFS	Multiphase Flow Separators
MFT	Multiphase Flow Technology
MGFA	Multi-user Gaseous Fuels Apparatus
MGI	MICROSCALE Glovebox Investigation Experiment
MGM-III	Mechanics of Granular Materials Experiment - III
MI	Minority Institutions
MIDAS	Miscible Interface Dynamics and Simulation Experiment
MIST	Water Mist Fire Suppression Experiment
MMOD	Micro-Meteoroid and Orbital Debris
MOA	Memorandum of Agreement
MOBI	Microgravity Observations of Bubble Interaction Experiment
MOMM	Microscopy and Optical Manipulation Module
MOTS	Modified-Off-The-Shelf
MOU	Memorandum of Understanding
MRDOC	Microgravity Research, Development and Operations Contract
MRR	Mission Readiness Review
MS	Milestone
MSD	Microgravity Science Division
MSD	Mission System Development
MSFC	Marshall Space Flight Center
MSG	Microgravity Science Glovebox
μMRF	Micromechanics of Magnetorheological Fluids, LMM-5
μgSEG	Particle Segregation in Collisional Sheering Flows Experiment, GFM-1
μSCALE	Microscale Hydrodynamics Near Moving Contact Lines Experiment
μSIGMA	Micro Solids Interacting with Gas in a Microgravity Apparatus Experiment, GFM-2

-N-

N/A	Not Applicable
NAC	NASA Advisory Committee
NAR	Non-Advocate Review
NASA	National Aeronautics and Space Administration
NCMR	National Center for Microgravity Research
NCRP	National Council on Radiation Protection
NCSER	National Center for Space Exploration Research (formerly NCMR)
NDI	Non-Developmental Items
NEDD	Natural Environments Definition for Design
NEP	Nuclear Electric Propulsion
NEPA	National Environmental Policy Act
NESC	NASA Engineering and Safety Center
NFS	NASA FAR Supplement
NGIT	Northrop Grumman, Information Technologies (MRDOC)
NIST	National Institute of Standards & Technology
NLSA	Nuclear Launch Safety Approval
NODIS	NASA Online Directives Information System
NP	NASA Publication
NPBX	Nucleate Pool Boiling under Microgravity Experiment
NPD	NASA Policy Directive
NPD	NASA Policy Documents
NPR	NASA Procedural Requirement (Document)
NRA	NASA Research Announcement
NRC	National Research Council
NSRS	NASA Safety Reporting System
NSSA	National Security Space Acquisition
NT&D	Nuclear Technology and Demonstrations
NTR	Nuclear Thermal Rocket
NWR	Not Worth Reporting

OAG	Operations Advisory Group
OASIS	Observation and Analysis of Smetic Islands in Space, LMM-7
OCE	Office of the Chief Engineer
OCHMO	Office of the Chief Health and Medical Officer
OG	Over guide-line
OM	Orbital Module
OMB	Office of Management and Budget
ORDT	Objectives and Requirements Definition Team
ORR	Operations Readiness Review
ORU	Orbital Replacement Unit
OSD	Office of the Secretary of Defense
OSMA	Office of Safety and Mission Assurance
OSP	Orbital Space Plane
OV	Operational View

-P-

PA&E	Program Analysis and Evaluation
PAPAC	Provide Aerospace Products and Capabilities
PAR	Performance and Accountability Report
PARL	Performance and Accountability Reporting Lead
PART	Program Assessment Rating Tool
PAS	Passive and Active Gas-Liquid Separator Devices
PASEP	Passive and Active Phase Separators
PASLB	Passive Acoustic Stabilization of Liquid Bridges Experiment
PBM-1	Pool Boiling Module-1
PBMA	Process Based Mission Assurance
PBRE	Packed Bed Reactor Experiment
PBS	President's Budget Submission
PBS	Product Breakdown Structure
PC	Plane Change
PCA	Program Commitment Agreement
PCB	Program / Project Control Board
PCE	Particulate Control Experiment
PCS	Physics of Colloids in Space Experiment, LMM-3
PCS+	Physics of Colloids in Space Experiment Plus
PCS-2	Physics of Colloids in Space Experiment-2
PCS-3	Physics of Colloids in Space-3
PDE	Pulsed Thermal Loop Demo
PDR	Preliminary Design Review
PDS	Planetary Data System
PERT	Program Evaluation Review Technique
PESHE	Programmatic Environmental, Safety, and Occupational Health Evaluation
PHaSE-2	Physics of Hard Spheres Experiment-2, LMM-2
PI	Principal Investigator
PIMS	Principal Investigator Microgravity Services
PKE	Plasma Krystal Experiment
PLAR	Post-Launch Assessment Review
PMA	President's Management Agenda
PMB	Performance Measurement Baseline
PMC	Program management Council
PMDP	Project Management Development Process
PMF	Propellant Mass Fraction
PMH	Program Manager's Handbook
PNAR	Preliminary Non-Advocate Review
POC	Point of Contact
POP	Program Operating Plan
PPL	Performance Planning Lead
PRA	Probabilistic Risk Assessments
PSR	Pre-Ship Review
PSRP	Payload Safety Review Panel
PSTR	Pre-Storage Review
PStR	Pre-Storage Review
PV	Process Verification
PWP	Primary Water Processor
PY	Program Tear

QA
QFD

Quality Assurance
Quality Function Deployment

-R-

R&T	Research and Technology
R&TD	Research and Technology Development
RCR	Research Concept Review
RDR	Requirements Definition Review
REEFS	Radiative Enhancement Effects on Flame Spread
RFI	Request for Information
RFP	Request for Proposal
RFQ	Request for Quote
RGF,GFM-4	Regimes of Granular Flow
RID	Review Item Discrepancy
RLEP	Robotic Lunar Exploration Program
RMB	Risk Management Board
RMSAG	Risk and Mission Success Advisory Group
RP-1	Rocket Propellant 1
RPS	Robotic Precursor System
RTIP	Research and Technology Implementation Plan
RTM	Research Team Member
RTSAD	Risk Tool Suite for Advanced Design
RWGS	Reverse Water Gas Shift

-S-

S&MA	Safety and Mission Assurance
S/C	Spacecraft
SAME	Smoke Aerosol Measurement Experiment
SAMP	Single Acquisition Management Plan
SAPIAD	Space Science Pending International Agreement Database
SAMS	Space Acceleration Measurement System
SAR	Shared Accommodations Rack
SBA	Simulation Based Acquisition
SBIR	Small Business Innovative Research
SCMP	Soft Condensed Matter Physics
SCR	Science Concept Review
SCWO	Super Critical Water Oxidation
SDR	System Design Review
SDVOSB	Service Disabled Veteran Owned Small Businesses
SE	Systems Engineer
SE&I	Systems Engineering and Integration
SEB	Source Evaluation Board
SEDC	Sooting and Radiation Effects in Droplet Combustion Experiment
SEMP	Systems Engineering Management Plan
SEP	Gas-liquid Separator Experiment
SEP	Liquid-Gas Separator Experiment
SEP	Solar Proton Event
SESCDP	Senior Executive Service Candidate Development Program
S-FLAME	Structure and Response of Spherical Diffusion Flames
SHERE	Shear History Extensional Rheology Experiment
SIBAL	Solid Inflammability Boundary at Low-Speed
SICD	Spiral Initial Capabilities Document
SIGMA	Gas-Particle Interactions in a Microgravity Flow Cell
SLB	Stabilization of Liquid Bridges
SMA	Safety and Mission Assurance
SMARR	Safety and Mission Assurance Readiness Review
SMARTS	Safety and Mission Assurance Requirements Tracking System
SMD	Science Mission Directorate
SMO	System Management Office
Smoke	Characterization of Smoke Particulate for Spacecraft Fire Detection
SOFBALL	Structure of Flame Balls at Low Lewis-numbers
SOLAR	Site for Online Learning and Resources
SOMD	Space Operations Mission Directorate
SOW	Statement of Work
SPAWG	Space Communications Analysis Working Group
SPE	Solar Particle Event
SRD	Systems Requirements Documents
SRFE	Smart Fluid Rheology
SRM&QA	Safety, Reliability, Maintainability and Quality Assurance
SRR	System Requirements Review
SS	Systems-of-Systems
SSAA	System Security Authorization Agreement
SSAS	Space System Acquisition Strategy
SSC	Stennis Space Center
SSPIAD	Space Science Pending International Agreements Database
SSTAC	Space Science and Technology Advisory Committee
STD	Standard (Document)
STES	Single-locker Thermal Enclosure System
STTP	Strategy to Task to Technology Process (or Panel)
STTR	Small Business Technology Transfer
SV	Schedule Variance
SV	System View
SWMS	Solid Waste Management System

-T-

T&E	Test & Evaluation
T	Tank (NTR staging tank)
TBD	To Be Decided
TBD	To Be Determined
TBR	To Be Resolved
TC	Thermal Control
TCPI	To Complete Performance Index
TDRSS	Tracking and Data Relay Satellite System
TEI	Trans-Earth Injection
TEMP	Test and Evaluation Management Plan
TEMP	Test and Evaluation Master Plan
TIGER-3D	Transition from Ignition to Flame Growth under External Radiation in Three Dimensions
TIM	Technical Interchange Meetings
TLI	Trans-Lunar Injection
T ϕ FFy	Two-Phase Flow Facility
TO	Trade Option
TOC	Total Ownership Cost
TPFE	Two-Phase Flow Experiment
TPHT	Two-Phase Heat Transfer
TPM	Technical Performance Measurement
TPM	ALS Two-Phase Modeling
TPS	Thermal Protection System
TRL	Technology Readiness Level
TRP	Transition Research Projects
TS	Thermal Systems
TV	Technical View
TVR	Test and Verification Review
TWH	Technical Warrant Holders

-U-

UF-X	Utility/Utilization Flight
UPN	Unique Project Number
URL	Uniform Resource Locator
UVIS	Ultraviolet-Visible-Infrared Spectrophotometer

VAR	Variance Analysis Report
VCD	Vapor Compression Distillation
VE	Value Engineering
VOSB	Veteran-Owned Small Business
VPCAR	Vapor Phase Catalytic Ammonia Reactor

-W-

WBS	Work Breakdown Structure
WCD	Workforce Competency Dictionary
WONDER	Water Offset Nutrient Delivery Experiment
WOSB	Woman Owned Small Businesses
WP	Water Processor
WR	Water Reclamation
WRS	Water Recovery System

-X-

-Y-

-Z-

ZBR	Zero Base Review
ZGF	Zero Gravity Facility
ZIN	ZIN Technologies